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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/830,625

04/27/2001

Gerhard Schmitz

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1856

21553

7590

10/02/2002

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EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/830,625

Applicant(s)

SCHMITZ ET AL.

Examiner

Christopher P Bruenjes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 13-19 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 13-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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3. The abstract of the disclosure is objected to because the abstract refers to claim 1 to describe the insulation arrangement, when the abstract must describe the invention in narrative form without referring to other sections of the disclosure. Also, the use of parenthesis within the abstract except for designating reference signs makes the abstract unclear. The abstract should preferably be one paragraph. Correction is required. See MPEP § 608.01(b).

4. The following guidelines illustrate the preferred layout and content for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive; preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

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- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole.

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The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a

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single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (k) Sequence Listing, See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

5. The disclosure is objected to because of the following informalities: The disclosure needs a cross-reference of related documents section and a section for the brief description of the drawings. The disclosure should also be broken down into the suggested sections as listed above with the appropriate headings.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-5 and 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are not written in United States Patent format and corrections must be taken. In US practice article claims must claim defined structural entities of the invention and not merely state intended outcomes of the article. Reference numbers referring to the drawings are allowed in claims, but the scope of the invention must be defined within the claims without referencing the drawings, therefore it is suggested that the reference numbers are taken out of the claims.

Regarding claim 1, the phrase "insulation arrangement" is indefinite because it is not understood if the arrangement is an insulation packet or if where the insulation packet is located in an air vehicle is being claimed, which would be an intended use for the insulation packet. Therefore the "insulation arrangement" is considered an insulation packet used in an air vehicle. The phrase "insertable within an interspace" is indefinite since it is not understood what is meant by "insertable". This is not a proper use of a means plus function limitation. It is determined that any article is insertable within an interspace. The phrase "does not completely line the



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interspace in the inserted condition" is indefinite because it is not understood the scope of "does not completely line" or an "inserted condition" for defining an insulation packet. In line 8, "realized" does not make sense in this context, because the film is not being made real or obtaining anything. The phrase "which is realized with a film material that permits the diffusion of gases" is suggested to be changed to "a gas permeable film" in order to define what the film is. The limitation referring to "the film outer" and "the film inner wall surface" on line 11, is indefinite because it is not understood whether the film outer wall and film inner wall refer to the inside and outside of one film wall, or if the film outer wall and the film inner wall refer to the wall of the insulation arrangement facing the inner trim or outside shell of the aircraft. The limitation is taken in its broadest sense as the film inner wall referring to the section of film facing the inner trim of the aircraft and the film outer wall referring to the section of film facing the outside shell of the aircraft. Therefore, claim 1 is determined to be an insulation arrangement comprising an outer shell of an air vehicle, an inner trim of an air vehicle, and an insulation packet between the outer shell and inner trim. The insulation packet comprises insulation surrounded by a film. The film comprises one section that has a

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high gas diffusion resistance and one section that has a low gas diffusion resistance.

Regarding claim 2, the phrase "characterized in that such a diffusion behavior is allocated to the film material of the film" is indefinite because it suggests that the film material is being given a diffusion behavior and diffusion behavior is an end ability not a definition of structure, therefore it receives little patentable weight. The limitation referring to "the film outer" and "the film inner wall surface" on line 11, is indefinite because it is not understood whether the film outer wall and film inner wall refer to the inside and outside of one film wall, or if the film outer wall and the film inner wall refer to the wall of the insulation arrangement facing the inner trim or outside skin of the aircraft. The limitation is taken in its broadest sense as the film inner wall referring to the section of film facing the inner trim of the aircraft and the film outer wall referring to the section of film facing the outside skin of the aircraft. The use of parenthesis in line 6 except to designate reference signs makes the claim indefinite because parenthesis bring to question whether the limitation within the parenthesis is actually part of the claim or not. Therefore claim 2 is determined that the section of film facing the outer skin of the air vehicle has low diffusion resistance

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and the section of film facing the inner trim has high diffusion resistance.

Regarding claim 3, the phrase "is made up of" is indefinite because it is not understood if the phrase means consisting of or comprising. The phrase is taken as comprising. The word "type" in line 3 is indefinite. The phrase "which are fixedly joined with one another on the film edges" is indefinite, because it is not understood what part of the film is the edge and which edge is being defined. In line 4, one film cannot be defined with 2 different reference numbers. Also the phrase "lies section wise on the insulation packet" is indefinite, because it does not define where the films are laying. Therefore, claim 3 is determined to claim that the film in claim 1 comprises two different films joined by the ends to form one layer surrounding the insulation.

Regarding claim 4, in line 2, "realized" does not make sense in this context, because the film is not being made real or obtaining anything. The word "provides" in line 3 is indefinite because it is not understood if the material has a low diffusion resistance coefficient or is somehow giving one. The phrase "in the diffusion direction of the total arrangement on the side of the insulation packet facing toward the outer skin" is indefinite because it describes the films ability and

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not where the film is located on the insulation packet.

Therefore, claim 4 is determined to define the first film as a film with low diffusion resistance and is located on the side of the insulation packet facing the outer skin of the air vehicle.

Regarding claim 5, in line 2, "realized" does not make sense in this context, because the film is not being made real or obtaining anything. The word "provides" in line 3 is indefinite because it is not understood if the material has a high diffusion resistance coefficient or is somehow giving one. The phrase "in the diffusion direction of the total arrangement on the side of the insulation packet facing toward the inner trim" is indefinite because it describes the films ability and not where the film is located on the insulation packet. Therefore, claim 5 is determined to define the first film as a film with high diffusion resistance and is located on the side of the insulation packet facing the inner trim of the air vehicle.

Regarding claim 13, "film (5) or (2)" in line 2 is indefinite because the film is defined in claim 1, which only contains one film which relates to (5) of the drawing. The phrase "which divides the interspace into an inner region and an air gap region" defines a function for the stringer, but it is not properly presented in means plus function format, therefore

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it is taken as a intended use and receives little patentable weight. Also, reference number (7) references the interspace and cannot reference more than one item in a drawing. The word "provided" in line 5 is indefinite because it is not understood if the insulation arrangement has an air gap between the stringer and outer skin of the air vehicle or is somehow giving one. Therefore, claim 13 is determined to comprise the film as defined in claim 1 laying on a stringer.

Regarding claim 14, the phrase "with which the stringer is supported relative to the outer skin" is indefinite because it does not define structure, because it is not a proper means plus function limitation. The phrase is taken as an intended use of the spacer members, which receives little patentable weight. Therefore, claim 14 is determined to comprise spacer members between the stringer and the outer skin of the air vehicle in any arrangement.

Regarding claim 15, the word "provided" in line 3 is indefinite because it is not understood if the inner trim has plural slits or is somehow giving them. The phrase "which are provided for the penetration of a relatively warm air that is located outside of the inner space and that is loaded with a high moisture" is indefinite because it does not define structure, because it is not a proper means plus function

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limitation. The phrase is taken as an intended use of the plural slits and receives little patentable weight. Also, inner space in line 5 has no antecedent basis it is not understood what inner space refers to. The phrase "film (5) or (2)" in line 7 is indefinite because the film is defined in claim 1, which only contains one film which relates to (5) of the drawing. Therefore, claim 15 is determined to define an inner trim comprising plural slits.

Regarding claim 16, there is no antecedent basis for "the first film" or "the second film", the only film defined is the film defined in claim 1. The word "predominantly" in lines 3 and 5 is indefinite because in line 3 it does not define the scope of how much of the film is lying on the stringer or if it is actually laying on the stringer and in line 5 it does not define how the film is oriented to the surface of the inner trim. Also, inner space in line 6 has no antecedent basis it is not understood what inner space refers to. Therefore, claim 16 is determined to define at least part of the film as claimed in claim 1 lying near the surface of the stringer.

Regarding claim 17, in line 2, "realized" does not make sense in this context, because the insulation packet is not being made real or obtaining anything. Only one reference number can reference the film described in line 4 and the only

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film defined is the film in claim 1. The phrase "embodied as a" is indefinite because it suggests that the film represents a plastic film which does not define whether the film is plastic or not. The phrase "adapted to the surface contour of the outer skin" is stated as a process limitation within an article claim, and therefore receives little patentable weight. Also, inner space in line 6 has no antecedent basis it is not understood what inner space refers to. Therefore, claim 17 is determined to define an insulation packet comprising insulation made of polyphenylene sulfide and a film as defined by claim 1 made of any material.

Regarding claim 18, thin and thick are definite but are taken in their broadest sense, which is determined to only define the second film as being thicker than the first film.

Regarding claim 19, only one reference number can reference the film described in line 4 and the only film defined is the film in claim 1. Inner space in line 6 has no antecedent basis it is not understood what inner space refers to and the reference number (11) refers to condition air and cannot be used to refer to more than one item in a drawing. Lines 4-7 describes a drying effect, and describes a process for achieving this drying effect by using conditioned air from an air conditioning device, however process limitations receive little

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patentable weight. A drying effect is determined to include anything that helps evaporate water, which includes any air surrounding the insulation packet. Therefore, claim 19 is determined to define an insulation arrangement comprising the film lying on the stringer and not lying on the inner trim, and a drying effect, which is defined as anything that promotes evaporation of water, which includes air.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5,15, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Norvell (USPN 5,472,760).

Norvell anticipates an insulation arrangement comprising an outer shell of an air vehicle (Fig.1 and col.3, 1.18-20), an inner trim of an air vehicle, and an insulation packet between the outer shell and inner trim (col.4, 1.46-48). The insulation packet comprises insulation surrounded by a film (col.3, 1.44-48). The film comprises one section that has a high gas



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diffusion resistance (col.5, 1.57-61) and one section that has a low gas diffusion resistance (col.3, 1.57-64). The high gas diffusion resistance section faces toward the inner trim and the other section faces toward the outer skin (col.6, 1.51-60). The film surrounding the insulation is made up of two different films (Fig.3) the first film has low diffusion resistance (col.3, 1.57-64) and the second film has high diffusion resistance (col.5, 1.57-61) with the first film facing the outer skin and the second film facing the inner trim (col.6, 1.51-60). Norvell's inner trim inherently has a plurality of slits because moisture vapor in the air from the interior of the vehicle passes to the insulation packet (col.4, 1.20-25). The second film is thicker than the first film according to Fig.1 of the reference with regards to the fact that the insulation packet is turned around (col.6, 1.51-60).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 13-14,16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell (USPN 5,472,760) in view of White et al (USPN 5,398,889).

Norvell anticipates all that is claimed in claim 1 and that the insulation packet is attached to the outer skin (col.4, l. 47-55), but fails to teach a stringer in the insulation arrangement. However, White et al teach that stringers are added to air vehicles in order to provide strength for many forms of loading by providing bending and buckling stiffness for skin (col.4, l.63-68). White et al also teach that the stringers have a number of holes through them spaced along its length to allow flow of condensate downwardly along the inside surface of the skin (col.5, l.1-5). Structurally holes through

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supports for a stringer are the same thing as a plurality of spacer members supporting a stringer. The stringers form integrally with the outer skin, therefore it would have been obvious to one skilled in the art that the insulation packet would have to lay on the stringers if attached to the outer skin. Inherently there is air surrounding the insulation packet that acts as a drying agent. One of ordinary skill in the art would have recognized that an air vehicle would have stringers with gaps between the stringer and outer skin in order to provide the air vehicle with added strength by providing bending and buckling stiffness and the gaps would be formed in order to allow condensate to flow down along the inside surface of the outer skin as taught by White et al. One of ordinary skill in the art would have also recognized that the insulation packet would lay on the stringers because it was attached to the outer skin and the stringers and skin are integrally formed leaving no where else for the insulation packet. Further, note that White et al also teach an air conditioning device used to further dry the insulation packet (col.3, 1.30-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to add a stringer to the air vehicle of Norvell with an air gap formed between the stringer and outer skin and lay the

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insulation packet of Norvell on the stringer in order to provide the air vehicle with more strength, the condensate a way to flow down the outer skin, as taught by White et al, and lay the insulation packet the only place possible when it is attached to the outer skin of the air vehicle.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norvell (USPN 5,472,760) in view of Stahlke et al (USPN 5,126,380).

Norvell teaches all that is claimed in claim 1 and the insulation packet comprises insulation surrounded by a film, in which the film is polyurethane for one section and Mylar for the other. Norvell also teaches that the insulation material is constructed from any material used in vehicle insulation, but fails to teach using polyphenylene sulfide as the insulation material. However, Stahlke et al teach uses of polyphenylene sulfide in the form of structural foam (col.1, 1.1-15). The polyphenylene sulfide is used in the aviation vehicle market for thermal insulation, because it has the properties of high heat resistance, rigidity, chemical resistance, weight reduction, thermal insulation and low flammability. For air vehicle insulation, the material used must have weight reduction, be thermal insulating, chemical resistant, especially towards

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absorption of water, and low flammability, which is very important in air vehicles. One of ordinary skill in the art would have recognized that polyphenylene sulfide is used as the insulation material in air vehicles because it has low flammability, chemical resistance, weight reduction, and thermal insulation, as taught by Stahlke et al, which are all properties that enhance the safety and economics of an air vehicle.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to use polyphenylene sulfide as the insulation material in Norvell's insulation packet, in order to enhance the safety and economics of an air vehicle based on the properties of polyphenylene sulfide which include low flammability, chemical resistance, weight reduction, and thermal insulation as taught by Stahlke et al.

#### **Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Norvell (USPN 5,811,167.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Bruenjes whose telephone number is 703-305-3440.

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The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.

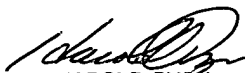
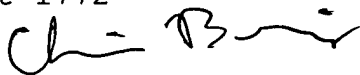
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Christopher P Bruenjes  
Examiner  
Art Unit 1772

CPB

September 26, 2002

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

9/27/02